

**II. Remarks**

Claims 1-33 were pending in the application. Claims 11-17 and 19-25 were withdrawn from consideration, claims 1-7 have been rejected and claims 8-10, 18, and 26-33 are allowed. After this amendment, claims 1-10, 18 and 26-33 will be pending.

Reconsideration of the application in view of the following remarks is respectfully requested.

**Rejection under 35 U.S.C. § 102**

Claims 1-4 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Pat. No. 6,450,528 issued to Suezawa, et al. ("Suezawa"). In view of the remarks contained herein, Applicants respectfully submit that the rejections of claims 1-4 are traversed.

Suezawa discloses a vehicle seat that houses an airbag device on a side portion of a seat back frame. *Suezawa* at Abstract. As illustrated in Figure 3, the seat back frame 16 (most analogous to Applicants' claimed "back-rest frame") includes a pair of right and left side frames 18 and 20. The airbag device is fixed to the side frame 18 (most analogous to Applicants' claimed "part of the frame"), which is the side frame closest to a side door. After that, a seat pad 36, shown in Figure 4, covers the seat frame 16 and a seat surface covering 50 covers the outside of the seat pad 36 to form the structure of the seat 10. *Id.* at Col 1, lines 30-46.

The rear end portion of the side frame 18 has a flange 18B facing the interior of the seat. Forward of the flange 18B at an intermediate portion (in a front-to-rear

direction) of the side frame 18, is a concave portion 26 that is hollowed toward the inward direction (IN) of the seat 10 for housing the airbag device. The concave portion 26 includes an inflator housing portion 26A for housing the inflator 30 of the airbag device. The inflator 30 is fixed to the side frame 18 by bolts 29 and is disposed within the airbag pouch body 28. A protector 32, which is welded to the inflator housing portion 26A, is disposed outside of a rearward portion (inflator 30) of the airbag 28 for providing an expansion space during a side collision.

Inside of the seat pad 36, felt 38 is disposed on an interior surface of the seat pad 36. A cut-out 42 is formed in the felt 38 in a forward direction (FR) to facilitate breaking of a concave portion 40 when the airbag 28 is expanded. Guiding means 44 and 46, formed of resin press felt, are inserted in forward (FR) and outward positions along the felt 38, respectively. The resin press felts 44 and 46 are harder than the main portion of the pad 36 and are used to direct the expanding airbag 28 towards a sewn portion 54 positioned on the front outboard side portion of the covering 50. *Id.* at Col. 4, line 47-Col. 6, line 20.

In operation, the airbag 28 is expanded by the inflator 30 and due to the rigid effect of the resin press felts 44 and 46, the expansion direction of the airbag 28 is deflected toward the outside of the vehicle along line  $\alpha 1$  toward sewn portion 54 (see Figures 1 and 2) to break the covering 50, controlling the expansion of the airbag 28. Then, the resin press felt 44 is further deformed by expansion pressure of the airbag 28, and the airbag 28 expands at an angle  $\alpha 2$ . *Id.* at Col. 6, lines 21-48. Notably, the expansion directions  $\alpha 1$  and  $\alpha 2$  of the airbag 28 are in a forwardly outboard direction towards the side door and away the seat occupant. Moreover,

the airbag device (including the inflator 30 and the airbag 28) is attached directly to the outboard side of the intermediate portion 26 of the side frame 18 via bolts 29.

This is unlike Applicants' invention as recited in claim 1 where the air-bag unit is mounted to the back-rest frame via a mounting bracket so as to be located inboard of part of the frame such that the inflator is located adjacent a rear-most region of the frame so that a significant length of the air-bag bears against the frame as the air-bag is inflated upon the deployment to urge the airbag towards the occupant. In particular, the airbag device of Suezawa is located on the outboard side of the of the side frame 18 to position the airbag 28 such that the resin press felt guiding means 44 and 46 can facilitate directing the airbag away from the occupant and towards the side door along directions  $\alpha 1$  and  $\alpha 2$ . Arranging the airbag device otherwise would be contrary to the teachings of Suezawa. *Id.* at Col. 6, lines 39-48. Thus, it cannot be said that Suezawa's airbag device is located on the inboard side of the side frame 18 or that a significant portion of the airbag 28 bears against the side frame 18 to urge the airbag 28 toward the occupant. Moreover, the inflator 30 is mounted to the intermediate portion 26A of the side frame 18 and is distanced apart from the flange 18B, which is the rear-most region of the side frame 18, with both space and the protector 32 being disposed between the flange 18B and the inflator 30. Thus, it cannot be said that Suezawa's inflator 30 is located adjacent a rear-most region of the side frame 18. In the Suezawa lacks the noted elements of claim 1, the rejections based thereon should be withdrawn.

The Examiner posits that the side frame 18 (part of the seat-back frame 16) of Suezawa is analogous to Applicants' claimed "mounting bracket", and that the

protector 32 and felt 38 are analogous to Applicants' claimed "frame". This assertion is however unreasonable because one of ordinary skill in the art would understand the distinction between a frame and a mounting bracket. In particular, one of ordinary skill in the art would understand that a frame for a back-rest of a seat is the underlying structure that supports the general form of the back-rest and that a mounting bracket is a relatively smaller member that is used to mount something to the frame. Applicants disclose at paragraph [0031] that the frame of the back-rest includes a pair of spaced apart beams 10, each of which extends along a respective side region of the back-rest 5, and each beam comprising a generally planar side plate 11 with flanges. Figures 1 and 2 of Applicants' application clearly illustrates the frame as the underlying structure that supports the general form of the back-rest. Suezawa discloses that the seat back frame 16 includes a pair of right and left side frames 18 and 20 which are strengthening members and are disposed substantially parallel to a front-to-rear direction of the seat. *Suezawa* at Col. 4, lines 29-46. As illustrated in Figures 3-5, the seat back frame 16 (including the side frame 18) is the underlying structure that supports the general shape of the seat and therefore, is most analogous to Applicants' claimed back-rest and is not a mounting bracket.

Moreover, Suezawa discloses that the protector 32 is provided at the circumferential portion of the inflator 30 disposed outside of the airbag 28 and is used to protect a very localized space for expansion of the airbag 28 during a collision. Thus, the protector 32 is a relatively small component with respect to the seat-back frame 16 and only provides localized support for protecting the space immediately around a rearward portion of the airbag 28. Without the protector 32,

the seat-back would still have the same general form via support from the underlying structure of the seat-back frame 16. Accordingly, one of ordinary skill in the art would not understand the protector 32 as being the analogous to Applicants' frame for the back-rest. Also, the felt 38, which is a flimsy fabric material, forms part of the seat pad 36, which is separate from the protector 32. The flimsy fabric of the felt 38 is not capable of providing any practical support for the general form of the seat back and therefore, one of ordinary skill in the art would not understand the felt 38 as being analogous to Applicants' frame for the back-rest. Furthermore, the protector 32 and the felt 38 are separate parts of the seat back that are merely positioned adjacent to one another. There is nothing to suggest that the protector 32 and the flimsy felt 38 cooperate together to form the underlying structure that supports the general form of the back-rest such that one of ordinary skill in the art would understand these separate parts as being analogous to Applicant's frame for the back-rest.

Accordingly, Applicants believe that claims 1-4 are in a condition for allowance.

Rejection under 35 U.S.C. § 103

Claims 5-7 stand rejected under 35 U.S.C. § 103(a) as being anticipated by to Suezawa in view of U.S. Pat. No. 5,957,486 issued to Taguchi, et al. ("Taguchi"). In view of the remarks contained herein, Applicants respectfully submit that the rejections of claims 5-7 are traversed.

Since claims 5-7 depend on claim 1 and since Taguchi fails to disclose an air-bag unit that is mounted to the back-rest frame via a mounting bracket so as to be located inboard of part of the frame such that the inflator is located adjacent a rear-most region of the frame so that a significant length of the air-bag bears against the frame as the air-bag is inflated upon the deployment to urge the airbag towards the occupant, the combination of Suezawa and Taguchi cannot render the claims as obvious. Therefore the rejections of claims 5-7 should be withdrawn. Accordingly, Applicants believe that claims 5-7 are in a condition for allowance.

*Allowable Subject Matter*

Applicants gratefully acknowledge that claims 8-10, 18, and 26-33 are allowed.

Conclusion:

In view of the above amendments and remarks, it is respectfully submitted that the present form of the claims are patentably distinguishable over the art of record and that this application is now in condition for allowance. Such action is requested.

Respectfully submitted,

Dated: June 19, 2009

/Daniel P. Dailey/  
Daniel P. Dailey, Reg. No. 54,054  
Attorney for Applicants

BRINKS HOFER GILSON & LIONE  
524 SOUTH MAIN STREET  
SUITE 200  
ANN ARBOR, MI 48104  
(734) 302-6017